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> d his

     (FILE 'HOME' ENTERED AT 14:33:03 ON 27 JAN 2005)

     FILE 'EMBASE, BIOSIS, MEDLINE, SCISEARCH, CAPLUS' ENTERED AT 14:33:18 ON
     27 JAN 2005
L1            373 S HAIRPIN AND RNA AND LIBRARY
L2            852 S (RIBOZYME OR SINGLE-STRANDED HAIRPIN RNA) AND LIBRARY
L3           1150 S L1 OR L2
L4         106738 S INHIBIT AND EXPRESSION AND GENE
L5             35 S L3 AND L4
L6              9 S VARIEGATED AND LIBRARY AND (RNA OR RIBOZYME)
L7             25 DUP REM L5 (10 DUPLICATES REMOVED)

     FILE 'STNGUIDE' ENTERED AT 14:38:30 ON 27 JAN 2005

     FILE 'BIOSIS, MEDLINE, SCISEARCH, CAPLUS' ENTERED AT 14:45:44 ON 27 JAN
     2005
L8              7 DUP REM L6 (2 DUPLICATES REMOVED)

     FILE 'EMBASE, BIOSIS, MEDLINE, SCISEARCH, CAPLUS' ENTERED AT 14:46:02 ON
     27 JAN 2005

     FILE 'BIOSIS, MEDLINE, SCISEARCH, CAPLUS' ENTERED AT 14:46:02 ON 27 JAN
     2005

     FILE 'EMBASE, BIOSIS, MEDLINE, SCISEARCH, CAPLUS' ENTERED AT 14:49:13 ON
     27 JAN 2005

     FILE 'BIOSIS, MEDLINE, SCISEARCH, CAPLUS' ENTERED AT 14:49:14 ON 27 JAN
     2005
L9              8 S SMALL (W) INTERFER? (W) RNA (W) LIBRAR?
L10             6 DUP REM L9 (2 DUPLICATES REMOVED)
```

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FILE 'BIOSIS' ENTERED AT 14:33:18 ON 27 JAN 2005
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FILE 'MEDLINE' ENTERED AT 14:33:18 ON 27 JAN 2005

FILE 'SCISEARCH' ENTERED AT 14:33:18 ON 27 JAN 2005
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FILE 'CAPLUS' ENTERED AT 14:33:18 ON 27 JAN 2005
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

=> s hairpin AND rna AND library
L1 373 HAIRPIN AND RNA AND LIBRARY

=> s (ribozyme or single-stranded hairpin rna) AND library
L2 852 (RIBOZYME OR SINGLE-STRANDED HAIRPIN RNA) AND LIBRARY

=> s l1 or l2
L3 1150 L1 OR L2

=> s inhibit AND expression AND gene
L4 106738 INHIBIT AND EXPRESSION AND GENE

=> s l3 AND l4
L5 35 L3 AND L4

=> s variegated AND library AND (rna or ribozyme)
L6 9 VARIEGATED AND LIBRARY AND (RNA OR RIBOZYME)

=> dup rem l5
PROCESSING COMPLETED FOR L5
L7 25 DUP REM L5 (10 DUPLICATES REMOVED)

=> d ibib ab l7 1-25

L7 ANSWER 1 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1020024 CAPLUS
DOCUMENT NUMBER: 141:421013
TITLE: Small interfering **RNA libraries** and methods of cloning and use
INVENTOR(S): Nichols, Mark; Steinman, Richard
PATENT ASSIGNEE(S): University of Pittsburgh of the Commonwealth System of Higher Education, USA
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004101788	A2	20041125	WO 2004-US14494	20040510

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-469169P P 20030509

AB In one aspect, the invention provides a random or semirandom siRNA (encoding) **library**. Another aspect of the invention pertains to methods for construction of random or semirandom siRNA (encoding) **libraries**. Another aspect of the invention is vector systems for use in constructing siRNA **libraries** and/or that can express single siRNAs and siRNA **libraries** both constitutively and in an inducible fashion. In another aspect, the invention provides a method of using an siRNA **library**. The siRNA **library** is introduced into a population of cells. The population of cells then is subjected to a selection process to select a subpopulation of cells exhibiting a different behavioral, biochem., chemical, functional, mol., morphol., phenotypic, or phys. property from the remainder of population. Following the selection process, the subpopulation of cells can be isolated, analyzed, and/or cloned as desired. Such anal. of the subpopulation can be identification and sequencing of the siRNA species responsible for the different properties of the subpopulation relative to the remainder of the population. Alternatively, the subpopulation can be further analyzed by genomic, proteomic, and/or cellomic assays. Where such genomic, proteomic, and/or cellomic assays are employed, the method can produce several useful bioinformatics products. Specific siRNAs identified through this process may have direct therapeutic value. The invention claims **RNA** sequences for four siRNAs that **inhibit** human estrogen receptor α. In an example, a human cDNA **library** is digested into 100-1000 bp fragments using a restriction enzyme and cloned into plasmids having bidirectional transcription driven by flanking, oppositely-oriented T7 promoters. The plasmids also have vaccinia E3L **gene** cloned in cis with the digested cDNA fragment. The resulting siRNA **library** is a population of plasmids, each containing a sense and antisense copy of a random 19-mer. In mammalian cells, transcription of the **library** will produce dsRNA and **expression** of the E3L protein will **inhibit** the interferon response to long dsRNAs and prevent cell death. The endogenous DICER enzyme will process the long dsRNAs into 21-23 bp siRNAs.

L7 ANSWER 2 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:430965 CAPLUS
DOCUMENT NUMBER: 141:2297
TITLE: Method for the synergistic **gene** silencing at both transcription level (using zinc finger protein) and post-transcription level (RNAi technologies), and therapeutic uses
INVENTOR(S): Kim, Jin-Soo; Shin, Hyun Chul; Kwon, Heung-Sun
PATENT ASSIGNEE(S): Toolgen, Inc., S. Korea
SOURCE: PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2004044202 A1 20040527 WO 2003-KR2451 20031114
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: KR 2002-70845 A 20021114
AB The present invention relates to methods and compns. for regulating a target **gene** at both transcriptional and post-transcriptional levels. More particularly, it includes in one embodiment, a method for regulating a target **gene**, which comprises introducing into a cell a zinc finger protein binding to a promoter of the target **gene** or a DNA encoding said protein, and a **RNA** mol. binding to an mRNA transcribed from the target **gene** to **inhibit** the **expression** of said target **gene**. A composition for regulating a target **gene** comprising the zinc finger protein or a DNA encoding same, and the **RNA** mol. provide a substantially complete **gene** regulating effect due to the synergistic effect of the combination of ZFP and RNAi technologies.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:120982 CAPLUS
DOCUMENT NUMBER: 140:176309
TITLE: Protein and cDNA sequences of human and mouse cartilage differentiation inhibiting **gene**, their therapeutic and diagnostic uses for cartilage related diseases
INVENTOR(S): Muramatsu, Shuji; Matsuda, Akio; Honda, Goichi
PATENT ASSIGNEE(S): Asahi Kasei Kabushiki Kaisha, Japan
SOURCE: PCT Int. Appl., 306 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013326	A1	20040212	WO 2003-JP9939	20030805

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: JP 2002-228045 A 20020805
US 2002-401774P P 20020808
AB The present invention provides protein and cDNA sequences of human and mouse cartilage differentiation inhibiting proteins that **inhibit** type II collagen **expression**, and their uses in diagnosis, treatment and prevention of diseases associated with cartilage impairments.

Using the plasmid CPE43, the cDNA encoding a protein that can **inhibit** type II collagen **expression** is cloned from the cDNA **library** constructed from mouse cell line ATDC5 and human lung fibroblast, and the DNA sequence and the deduced amino acid sequence are determined The protein, the DNA encoding the protein, a recombinant vector containing the DNA, and a transformant containing the recombinant vector are useful in screening for a substance inhibiting or promoting the type II collagen **expression**.

L7 ANSWER 4 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:101279 CAPLUS
DOCUMENT NUMBER: 140:158524
TITLE: Partially double stranded **RNAs** with **hairpin** structures for use in **RNA** interference without induction of **RNA** -associated toxicity and their therapeutic uses
INVENTOR(S): Pachuk, Catherine J.; Satishchandran, C.; Chopra, Maninder; Shuey, David
PATENT ASSIGNEE(S): Nucleonics, Inc., USA
SOURCE: PCT Int. Appl., 174 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011624	A2	20040205	WO 2003-US24028	20030731
WO 2004011624	C2	20040408		
WO 2004011624	A3	20041209		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-399998P P 20020731
AB Partially double-stranded interfering **RNAs** that include a **hairpin** structure are described for use in **RNA** interference. These interfering **RNAs** specifically **inhibit** the **expression** of target **genes** in a cell or animal without inducing the toxic effects, such as the **RNA** stress response, seen with prior art interfering **RNAs**. These methods can be used to prevent or treat a disease or infection by silencing a **gene** associated with the disease or infection. The invention also provides methods for identifying nucleic acid sequences that modulate a detectable phenotype, such as the function of a cell, the **expression** of a **gene**, or the biol. activity of a target polypeptide.

L7 ANSWER 5 OF 25 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 1
ACCESSION NUMBER: 2004493962 EMBASE
TITLE: Identification of cellular cofactors for human immunodeficiency virus replication via a **ribozyme** -based genomics approach.
AUTHOR: Waninger S.; Kuhen K.; Hu X.; Chatterton J.E.; Wong-Staal

F.; Tang H.
CORPORATE SOURCE: H. Tang, Department of Biological Sciences, Biology Unit 1, Florida State University, Tallahassee, FL 32306-4370, United States. tang@bio.fsu.edu
SOURCE: Journal of Virology, (2004) 78/23 (12829-12837).
Refs: 35
ISSN: 0022-538X CODEN: JOVIAM
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English

AB **Ribozymes** are small, catalytic **RNA** molecules that can be engineered to down-regulate **gene expression** by cleaving specific mRNA. Here we report the selection of **hairpin ribozymes** that **inhibit** human immunodeficiency virus (HIV) replication from a combinatorial **ribozyme library**. We identified a total of 17 effective **ribozymes**, each capable of inhibiting HIV infection of human CD4 (+) cells. These **ribozymes** target diverse steps of the viral replication cycle, ranging from entry to transcription. One **ribozyme** suppressed HIV integration and transcription by inhibiting the **expression** of the Ku80 subunit of the DNA-activated protein kinase. Another **ribozyme** specifically inhibited long terminal repeat transactivation, while two additional ones blocked a step that can be bypassed by vesicular stomatitis virus G-protein pseudotyping. The function of Ku80 in HIV replication and its mechanism of action were further confirmed using short interfering **RNA**. Identification of the **gene** targets of these and other selected **ribozymes** may reveal novel therapeutic targets for combating HIV infection.

L7 ANSWER 6 OF 25 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 2004:653333 SCISEARCH
THE GENUINE ARTICLE: 837QY
TITLE: Aminoglycoside microarrays to explore interactions of antibiotics with RNAs and proteins
AUTHOR: Disney M D; Seeberger P H (Reprint)
CORPORATE SOURCE: ETH Honggerberg, Organ Chem Lab, Swiss Fed Inst Technol, HCI F315, CH-8093 Zurich, Switzerland (Reprint); ETH Honggerberg, Organ Chem Lab, Swiss Fed Inst Technol, CH-8093 Zurich, Switzerland; MIT, Dept Chem, Cambridge, MA 02139 USA
COUNTRY OF AUTHOR: Switzerland; USA
SOURCE: CHEMISTRY-A EUROPEAN JOURNAL, (5 JUL 2004) Vol. 10, No. 13, pp. 3308-3314.
Publisher: WILEY-V C H VERLAG GMBH, PO BOX 10 11 61, D-69451 WEINHEIM, GERMANY.
ISSN: 0947-6539.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 63

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB RNA is an important target for drug discovery efforts. Several clinically used aminoglycoside antibiotics bind to bacterial rRNA and **inhibit** protein synthesis. Aminoglycosides, however, are losing efficacy due to their inherent toxicity and the increase in antibiotic resistance. Targeting of other RNAs is also becoming more attractive thanks to the discovery of new potential RNA drug targets through genome sequencing and biochemical efforts. Identification of new compounds that target RNA is therefore urgent, and we report here on the development of

rapid screening methods to probe binding of low molecular weight ligands to proteins and RNAs. A series of aminoglycosides has been immobilized onto glass microscope slides, and binding to proteins and RNAs has been detected by fluorescence. Construction and analysis of the arrays is completed by standard DNA genechip technology. Binding of immobilized aminoglycosides to proteins that are models for study of aminoglycoside toxicity (DNA polymerase and phospholipase C), small RNA oligonucleotide mimics of aminoglycoside binding sites in the ribosome (rRNA A-site mimics), and a large (approximate to 400 nucleotide) group I **ribozyme** RNA is detected. The ability to screen large RNAs alleviates many complications associated with binding experiments that use isolated truncated regions from larger RNAs. These studies lay the foundation for rapid identification of small organic ligands from combinatorial **libraries** that exhibit strong and selective RNA binding while displaying decreased affinity to toxicity-causing proteins.

L7 ANSWER 7 OF 25 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2004256536 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15119963
TITLE: A plasmid-based system for expressing small interfering **RNA libraries** in mammalian cells.
AUTHOR: Kaykas Ajamete; Moon Randall T
CORPORATE SOURCE: Howard Hughes Medical Institute, Department of Pharmacology, and Center for Developmental Biology, University of Washington School of Medicine, Seattle, WA 98195,. USA.akaykas@u.washington.edu
SOURCE: BMC cell biology [electronic resource], (2004 Apr 30) 5 (1) 16.
Journal code: 100966972. ISSN: 1471-2121.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 20040525
Last Updated on STN: 20040602
Entered Medline: 20040601

AB BACKGROUND: **RNA** interference (RNAi) is an evolutionarily conserved process that functions to **inhibit gene expression**. The use of RNAi in mammals as a tool to study **gene** function has rapidly developed in the last couple of years since the discovery that the function-inhibiting units of RNAi are short 21-25 nt double-stranded **RNAs** (siRNAs) derived from their longer template. The use of siRNAs allows for **gene**-specific knock-down without induction of the non-specific interferon response in mammalian cells. Multiple systems have been developed to introduce siRNAs into mammals. One of the most appealing of these techniques is the use of vectors containing polymerase III promoters to drive **expression** of **hairpin** siRNAs. However, there are multiple limitations to using **hairpin** siRNA vectors including the observation that some are unstable in bacteria and are difficult to sequence. RESULTS: To circumvent the limitation of **hairpin** siRNA vectors we have developed a convergent opposing siRNA **expression** system called pHippy. We have generated pHippy vectors or **expression** cassettes that knock down the **expression** of both reporter and endogenous **genes**. As a proof of principle that pHippy can be used to generate random siRNA **libraries**, we generated a small siRNA **library** against PGL3 luciferase and demonstrated that we could recover functional siRNAs that knock down PGL3 luciferase. CONCLUSIONS: siRNA is a powerful tool to study **gene** function. We have developed a new vector with opposing convergent promoters for the **expression** of siRNAs, which can be used to knock down endogenous

genes in a high throughput manner or to perform functional screening with random or cDNA-derived siRNA **libraries**.

L7 ANSWER 8 OF 25 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 2004531391 EMBASE
TITLE: A plasmid-based system for expressing small interfering **RNA libraries** in mammalian cells.
AUTHOR: Kaykas A.; Moon R.T.
CORPORATE SOURCE: R.T. Moon, Howard Hughes Medical Institute, Department of Pharmacology, Univ. of Washington School of Med., Seattle, WA 98195, United States. rtmoon@u.washington.edu
SOURCE: BMC Cell Biology, (30 Apr 2004) 5/- (11p).
Refs: 23
ISSN: 1471-2121 CODEN: BCBMAY
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 022 Human Genetics
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Background: **RNA** interference (RNAi) is an evolutionarily conserved process that functions to **inhibit gene expression**. The use of RNAi in mammals as a tool to study **gene** function has rapidly developed in the last couple of years since the discovery that the function-inhibiting units of RNAi are short 21-25 nt double-stranded **RNAs** (siRNAs) derived from their longer template. The use of siRNAs allows for **gene**-specific knock-down without induction of the non-specific interferon response in mammalian cells. Multiple systems have been developed to introduce siRNAs into mammals. One of the most appealing of these techniques is the use of vectors containing polymerase III promoters to drive **expression** of **hairpin** siRNAs. However, there are multiple limitations to using **hairpin** siRNA vectors including the observation that some are unstable in bacteria and are difficult to sequence. Results: To circumvent the limitation of **hairpin** siRNA vectors we have developed a convergent opposing siRNA **expression** system called pHippy. We have generated pHippy vectors or **expression** cassettes that knock down the **expression** of both reporter and endogenous **genes**. As a proof of principle that pHippy can be used to generate random siRNA **libraries**, we generated a small siRNA **library** against PGL3 luciferase and demonstrated that we could recover functional siRNAs that knock down PGL3 luciferase. Conclusions: siRNA is a powerful tool to study **gene** function. We have developed a new vector with opposing convergent promoters for the **expression** of siRNAs, which can be used to knock down endogenous **genes** in a high throughput manner or to perform functional screening with random or cDNA-derived siRNA **libraries**. .COPYRGT. 2004 Kaykas and Moon; licensee BioMed Central Ltd.

L7 ANSWER 9 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN DUPLICATE 3

ACCESSION NUMBER: 2004:320712 BIOSIS
DOCUMENT NUMBER: PREV200400321938
TITLE: A plasmid-based system for expressing small interfering **RNA libraries** in mammalian cells.
AUTHOR(S): Kaykas, Ajamete; Moon, Randall T. [Reprint Author]
CORPORATE SOURCE: Howard Hughes Med InstDept Pharmacol, Univ Washington, Seattle, WA, 98195, USA
akaykas@u.washington.edu; rtmoon@u.washington.edu
SOURCE: BMC Cell Biology, (April 30 2004) Vol. 5, No. April 30. print.

ISSN: 1471-2121 (ISSN online).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Jul 2004
Last Updated on STN: 21 Jul 2004

AB Background: **RNA** interference (RNAi) is an evolutionarily conserved process that functions to **inhibit gene expression**. The use of RNAi in mammals as a tool to study **gene** function has rapidly developed in the last couple of years since the discovery that the function-inhibiting units of RNAi are short 21-25 nt double-stranded **RNAs** (siRNAs) derived from their longer template. The use of siRNAs allows for **gene**-specific knock-down without induction of the non-specific interferon response in mammalian cells. Multiple systems have been developed to introduce siRNAs into mammals. One of the most appealing of these techniques is the use of vectors containing polymerase III promoters to drive **expression** of **hairpin** siRNAs. However, there are multiple limitations to using **hairpin** siRNA vectors including the observation that some are unstable in bacteria and are difficult to sequence. Results: To circumvent the limitation of **hairpin** siRNA vectors we have developed a convergent opposing siRNA **expression** system called pHippy. We have generated pHippy vectors or **expression** cassettes that knock down the **expression** of both reporter and endogenous **genes**. As a proof of principle that pHippy can be used to generate random siRNA **libraries**, we generated a small siRNA **library** against PGL3 luciferase and demonstrated that we could recover functional siRNAs that knock down PGL3 luciferase. Conclusions: siRNA is a powerful tool to study **gene** function. We have developed a new vector with opposing convergent promoters for the **expression** of siRNAs, which can be used to knock down endogenous **genes** in a high throughput manner or to perform functional screening with random or cDNA-derived siRNA **libraries**.

L7 ANSWER 10 OF 25 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 2004233749 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14604435
TITLE: Expressing functional siRNAs in mammalian cells using convergent transcription.
AUTHOR: Tran Nham; Cairns Murray J; Dawes Ian W; Arndt Greg M
CORPORATE SOURCE: Johnson and Johnson Research Pty Ltd, 1 Central Ave, Australian Technology Park, Eveleigh, NSW 1430, Australia.. nham@nucleics.com
SOURCE: BMC biotechnology [electronic resource], (2003 Nov 6) 3 (1) 21.
Journal code: 101088663. ISSN: 1472-6750.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200407
ENTRY DATE: Entered STN: 20040511
Last Updated on STN: 20040723
Entered Medline: 20040722

AB BACKGROUND: The use of small interfering **RNAs** (siRNAs) as genetic inhibitors of **gene expression** has been shown to be an effective way of studying **gene** function in mammalian cells. Recently, different DNA vectors for **expression** of small **hairpin RNAs** (shRNAs) or co-**expression** of sense and antisense **RNAs** have been developed that direct siRNA-mediated **gene** silencing. One **expression** cassette design that has been used to express long sense and antisense **RNAs** in non-mammalian cell types is symmetric transcription using

convergent promoters. However, convergent transcription as a way to generate functional siRNAs in mammalian cells has not been reported. This vector design permits the generation of **expression** constructs containing no repeat sequences, but capable of inducing **RNA** interference (RNAi)-mediated **gene** silencing. RESULTS: With the aim of simplifying the construction of RNAi **expression** vectors, we report on the production and application of a novel convergent promoter cassette capable of expressing sense and antisense **RNAs**, that form double-stranded **RNA**, and mediate **gene** silencing in mammalian cells. We use this cassette to **inhibit** the **expression** of both the EGFP transgene and the endogenous TP53 **gene**. The **gene** silencing effect is Dicer-dependent and the level of **gene** inactivation achieved is comparable to that produced with synthetic siRNA. Furthermore, this **expression** system can be used for both short and long-term control of specific **gene expression** in mammalian cells. CONCLUSION: The experiments performed in this study demonstrate that convergent transcription can be used in mammalian cells to invoke **gene** -specific silencing via RNAi. This method provides an alternative to **expression** of shRNAs and co-**expression** of sense and antisense **RNAs** from independent cassettes or a divergent promoter. The main advantage of the present vector design is the potential to produce a functional siRNA **expression** cassette with no repeat sequences. Furthermore, the cassette design reported is ideal for both routine use in controlling specific **gene expression** and construction of randomised RNAi **expression libraries** for use in unbiased forward genetic selections.

L7 ANSWER 11 OF 25 EMBASE
on STN

ACCESSION NUMBER: 2004279008 EMBASE
TITLE: Expressing functional siRNAs in mammalian cells using convergent transcription.
AUTHOR: Tran N.; Cairns M.J.; Dawes I.W.; Arndt G.M.
CORPORATE SOURCE: G.M. Arndt, Johnson/Johnson Research Pty Ltd., 1 Central Ave., Eveleigh, NSW 1430, Australia. garndt@medau.jnj.com
SOURCE: BMC Biotechnology, (6 Nov 2003) 3/- (9p).
Refs: 34
ISSN: 1472-6750 CODEN: BBMIE6
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 022 Human Genetics
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Background: The use of small interfering **RNAs** (siRNAs) as genetic inhibitors of **gene expression** has been shown to be an effective way of studying **gene** function in mammalian cells. Recently, different DNA vectors for **expression** of small **hairpin RNAs** (shRNAs) or co-**expression** of sense and antisense **RNAs** have been developed that direct siRNA-mediated **gene** silencing. One **expression** cassette design that has been used to express long sense and antisense **RNAs** in nonmammalian cell types is symmetric transcription using convergent promoters. However, convergent transcription as a way to generate functional siRNAs in mammalian cells has not been reported. This vector design permits the generation of **expression** constructs containing no repeat sequences, but capable of inducing **RNA** interference (RNAi)-mediated **gene** silencing. Results: With the aim of simplifying the construction of RNAi **expression** vectors, we report on the production and application of a novel convergent promoter cassette capable of expressing sense and antisense **RNAs**, that

form double-stranded **RNA**, and mediate **gene** silencing in mammalian cells. We use this cassette to **inhibit** the **expression** of both the EGFP transgene and the endogenous TP53 **gene**. The **gene** silencing effect is Dicer-dependent and the level of **gene** inactivation achieved is comparable to that produced with synthetic siRNA. Furthermore, this **expression** system can be used for both short and long-term control of specific **gene expression** in mammalian cells. Conclusion: The experiments performed in this study demonstrate that convergent transcription can be used in mammalian cells to invoke **gene** -specific silencing via RNAi. This method provides an alternative to **expression** of shRNAs and co-**expression** of sense and antisense **RNAs** from independent cassettes or a divergent promoter. The main advantage of the present vector design is the potential to produce a functional siRNA **expression** cassette with no repeat sequences. Furthermore, the cassette design reported is ideal for both routine use in controlling specific **gene expression** and construction of randomised RNAi **expression libraries** for use in unbiased forward genetic selections. .COPYRGT. 2003 Tran et al; licensee BioMed Central Ltd.

L7 ANSWER 12 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN DUPLICATE 5

ACCESSION NUMBER: 2004:72033 BIOSIS
DOCUMENT NUMBER: PREV200400075343
TITLE: Expressing functional siRNAs in mammalian cells using convergent transcription.
AUTHOR(S): Tran, Nham; Cairns, Murray J.; Dawes, Ian W.; Arndt, Greg M. [Reprint Author]
CORPORATE SOURCE: Johnson and Johnson Research Pty Ltd., 1 Central Avenue, Australian Technology Park, Eveleigh, NSW, 1430, Australia nham@nucleics.com; murray@nucleics.com; Idawes@unsw.edu.au; garndt@medau.jnj.com
SOURCE: BMC Biotechnology, (6 November 2003) Vol. 3, No. 21 Cited November 24, 2003. http://www.biomedcentral.com/content/pdf/1472-6750-3-21.pdf. cited January 8, 2004. http://www.biomedcentral.com/1472-6750. online. ISSN: 1472-6750 (ISSN online).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Feb 2004
Last Updated on STN: 4 Feb 2004

AB Background: The use of small interfering **RNAs** (siRNAs) as genetic inhibitors of **gene expression** has been shown to be an effective way of studying **gene** function in mammalian cells. Recently, different DNA vectors for **expression** of small **hairpin RNAs** (shRNAs) or co-**expression** of sense and antisense **RNAs** have been developed that direct siRNA-mediated **gene** silencing. One **expression** cassette design that has been used to express long sense and antisense **RNAs** in nonmammalian cell types is symmetric transcription using convergent promoters. However, convergent transcription as a way to generate functional siRNAs in mammalian cells has not been reported. This vector design permits the generation of **expression** constructs containing no repeat sequences, but capable of inducing **RNA** interference (RNAi)-mediated **gene** silencing. Results: With the aim of simplifying the construction of RNAi **expression** vectors, we report on the production and application of a novel convergent promoter cassette capable of expressing sense and antisense **RNAs**, that form double-stranded **RNA**, and mediate **gene** silencing in mammalian cells. We use this cassette to **inhibit** the **expression** of both the EGFP transgene and the endogenous TP53

gene. The **gene** silencing effect is Dicer-dependent and the level of **gene** inactivation achieved is comparable to that produced with synthetic siRNA. Furthermore, this **expression** system can be used for both short and long-term control of specific **gene expression** in mammalian cells. Conclusion: The experiments performed in this study demonstrate that convergent transcription can be used in mammalian cells to invoke **gene** -specific silencing via RNAi. This method provides an alternative to **expression** of shRNAs and co-**expression** of sense and antisense **RNAs** from independent cassettes or a divergent promoter. The main advantage of the present vector design is the potential to produce a functional siRNA **expression** cassette with no repeat sequences. Furthermore, the cassette design reported is ideal for both routine use in controlling specific **gene expression** and construction of randomised RNAi **expression libraries** for use in unbiased forward genetic selections.

L7 ANSWER 13 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:575234 CAPLUS
DOCUMENT NUMBER: 137:136059
TITLE: Protein and cDNA sequences of Drosophila **gene** Indy which encodes cellular carboxylate transporters and its effects on longevity
INVENTOR(S): Rogina, Blanka; Reenan, Robert A.; Helfand, Stephen L.
PATENT ASSIGNEE(S): University of Connecticut, USA
SOURCE: PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002059310	A2	20020801	WO 2001-US48130	20011212
WO 2002059310	A3	20040108		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2431517	AA	20020801	CA 2001-2431517	20011212
EP 1399553	A2	20040324	EP 2001-994221	20011212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-255013P P 20001212
WO 2001-US48130 W 20011212

AB This present invention discloses protein and cDNA sequences of Drosophila melanogaster **gene** Indy which encodes a cellular carboxylate transporter and its effects on longevity. Specifically, the invention discloses that **gene** Indy expresses in fat body, midgut and oenocytes in adult flies, its mutations have a pos. effect on life span, fertility and phys. activity. This disclosure also encompasses homologs of the Indy **gene** both from Drosophila and other organisms. In addition, this disclosure encompasses the use of Indy polynucleotides, INDY proteins and polypeptides, antibodies to the INDY protein, antagonists that **inhibit** Indy activity or **expression**, and agonists

that increase Indy activity or **expression**, in the diagnosis or treatment of body weight disorders or longevity in humans and animals.

L7 ANSWER 14 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:11125 CAPLUS
DOCUMENT NUMBER: 136:49331
TITLE: Random intracellular method for obtaining optimally active nucleic acid molecules
INVENTOR(S): Nilsen, Timothy W.; Robertson, Hugh D.; Kindt, Thomas J.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 17 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002002278	A1	20020103	US 1999-434598	19991105
PRIORITY APPLN. INFO.:			US 1999-434598	19991105

AB Vectors and a method for the identification of affector RNA mols., such as **ribozymes**, external guide sequences, anti-sense RNA, and triple helix-forming RNA, that **inhibit expression** of target RNA mols. are disclosed. The method identifies functional affector RNA mols. by screening or selecting for those RNA mols. that **inhibit expression** of a fusion transcript, which includes the sequence of an RNA mol. of interest, from a **library** of potential affector RNA mols. The vectors include a reporter **gene** encoding the fusion transcript including the RNA mol. of interest and RNA encoding the reporter protein. The vectors also include a second reporter **gene** encoding a second reporter protein. **Expression** of the second reporter protein can be used both to detect transformation or transfection of the vector into cells and as a control for effects on the **expression** of the first reporter protein that are not due to inhibition of **expression** of the RNA mol. of interest. The vector also encodes an affector RNA mol. targeted to the RNA of interest. A key advantage of the disclosed method and vectors is the assessment of inhibition of **expression** of an RNA of interest in an in vivo setting which will be the same or similar to the setting where identified affector mols. will be used. Another advantage of the disclosed method is that all, or a substantial number of the accessible sites in the RNA of interest can be determined in one assay. Also disclosed are affector oligomers based on affector RNA mols. identified as inhibiting the **expression** of an RNA of interest. The disclosed method also allows direct comparison of the inhibitory activities of different affector RNA mols. directed to different target sites.

L7 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:816911 CAPLUS
DOCUMENT NUMBER: 135:367726
TITLE: Cellular regulatory **genes** that support the replication of infectious agents, and **ribozymes** that target such cellular regulatory **genes**, and methods of use
INVENTOR(S): Kruger, Martin; Welch, Peter J.; Barber, Jack R.
PATENT ASSIGNEE(S): Immusol, Incorporated, USA
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001083754	A2	20011108	WO 2001-US14337	20010502
WO 2001083754	A3	20021003		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6808876	B1	20041026	US 2000-563794	20000502
CA 2409219	AA	20011108	CA 2001-2409219	20010502
EP 1278845	A2	20030129	EP 2001-932962	20010502
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-563794 A1 20000502
WO 2001-US14337 W 20010502

AB The invention is directed to methods of identifying cellular regulatory **genes** that support the replication of viruses such as hepatitis C virus (HCV). The methods are directed to the identification of **ribozymes** that target such cellular regulatory **genes** and to identifying the **genes** targeted by the **ribozymes**. The invention provides **ribozymes** with target recognition sequences (N8-AGAA-N4) that allow the **ribozyme** to target and cleave cellular regulators. Also provided are nucleic acids encoding various cellular regulators and sequences in such nucleic acid for which **ribozymes** can be directed. Fragments of these nucleic acid and protein sequences also are provided. Further provided is a method for identifying a **ribozyme** reactive with a cellular regulator of viral replication or **expression**, and a method for identifying the cellular regulator targeted by such **ribozymes**. Also provided is a method of identifying a compound that modulates the activity of a cellular regulator. A selection system based on a randomized **hairpin ribozyme gene library** to identify cellular factors involved in HCV IRES function have been developed. A retroviral vector **ribozyme library** with randomized target recognition sequences was introduced into HeLa cells, stably expressing a bicistronic construct encoding the hygromycin B phosphotransferase **gene** and the herpes simplex virus thymidine kinase **gene** (HSV-tk). Translation of the HSV-tk **gene** was mediated by the HCV IRES. Cells expressing **ribozymes** that **inhibit** HCV IRES-mediated translation of HSV-tk were selected via their resistance to both ganciclovir and hygromycin B. Two **ribozymes** reproducibly conferred the ganciclovir-resistant phenotype and were shown to **inhibit** IRES-mediated translation of HCV core protein but did not **inhibit** cap-dependent protein translation or cell growth. The functional targets of these **ribozymes** were identified as the gamma subunits of human eukaryotic initiation factors (eIF2Bγ) and (eIF2γ). The involvement of eIF2Bγ and eIF2γ in HCV IRES-mediated translation was further validated by **ribozymes** directed against addnl. sites within the mRNAs of these **genes**. Two more cellular regulators were identifyed that correspond to a cellular proteasome complex. In addition to leading to the identification of cellular IRES cofactors, **ribozymes** obtained from this cellular selection system could be directly used to specifically **inhibit** HCV viral

translation, thereby facilitating the development of new antiviral strategies for HCV infection.

L7 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:636271 CAPLUS
DOCUMENT NUMBER: 135:206427
TITLE: Platform for the discovery of the bacterial **genes** involved in RNA modification, and methods for screening for antibiotics
INVENTOR(S): Roberts, T. Guy; Mitchell, Wayne; Beckman, Kenneth
PATENT ASSIGNEE(S): Montclair Group, USA
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001062981	A1	20010830	WO 2001-US5920	20010223
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2401018	AA	20010830	CA 2001-2401018	20010223
US 2002001804	A1	20020103	US 2001-792878	20010223
EP 1263986	A1	20021211	EP 2001-914470	20010223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:		
US 2000-185000P	P	20000225
US 2000-185071P	P	20000225
US 2000-255506P	P	20000225
US 2000-225505P	P	20000815
WO 2001-US5920	W	20010223

AB Methods for identifying **genes** and **gene** products involved in RNA modification, and methods for screening test compds. or antibiotics for activity are provided. The **expression** of a candidate 'test' **gene** is modulated within an organism and the product of the activity of interest is analyzed for similar modulation. If this activity is vital to the pathogenicity of an organism or a disease, then the identification of the responsible enzyme and its **gene** in the above manner serves to characterize a useful drug target. The present invention systemizes this process of drug target identification by providing methods for correlating mol. and cellular structures to their causative **genes**. Furthermore, this invention provides methods for the simultaneous discovery of classes of enzymes that share at least one substrate in common. Where the members of the chosen class of substrates, termed "sentinel mols.," can be modified by any of a number of catalytic mechanisms, the assay is not limited to a specific enzymic activity. When performed in a multi-well format, the methods employing these sentinel mols. can be performed in a high throughput fashion. Addnl., the **gene** products identified in the methods, the **genes** that encode the **gene** products, modified sentinel mols. produced by the **gene** products, and compds. or antibiotics which **inhibit** the modification process are provided.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:646132 CAPLUS
DOCUMENT NUMBER: 133:218523
TITLE: Hybridization and selection methods for identification of synthetic nucleic acid sequences capable of inhibiting **gene expression**
INVENTOR(S): Gyuris, Jeno
PATENT ASSIGNEE(S): Mitotix, Inc., USA
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000053743	A1	20000914	WO 2000-US6385	20000310
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2362414	AA	20000914	CA 2000-2362414	20000310
EP 1161528	A1	20011212	EP 2000-916259	20000310
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6342356	B1	20020129	US 2000-522728	20000310
JP 2002537835	T2	20021112	JP 2000-603364	20000310
AU 774332	B2	20040624	AU 2000-37390	20000310
US 2003157477	A1	20030821	US 2001-950983	20010912

PRIORITY APPLN. INFO.:

US 1999-123924P	P	19990312
US 2000-522728	A1	20000310
WO 2000-US6385	W	20000310

AB The present invention relates to a selection method that allows fast recovery and identification of functional **gene** fragments that selectively **inhibit** growth, e.g., are cytostatic or cytotoxic, of particular cell-types, such as transformed cells. The strategy relies, in part, on the ability of small **gene** fragments to encode dominant-acting synthetic genetic elements (SGEs), e.g., mols. which interfere with the function of **genes** from which they are derived. SGEs which can be identified by the subject method include, but are not limited to, inhibitory antisense RNA mols., **ribozymes**, nucleic acid decoys, and small peptides.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 18 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:191261 CAPLUS
DOCUMENT NUMBER: 132:232751
TITLE: sequence and therapeutic applications for rat pancreatic T-type calcium channel as it relates to diabetes
INVENTOR(S): Li, Ming
PATENT ASSIGNEE(S): South Alabama Medical Science Foundation, USA

SOURCE: PCT Int. Appl., 124 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2000015845	A1	20000323	WO 1999-US19675		19990826
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
CA 2340586	AA	20000323	CA 1999-2340586		19990826
AU 9960217	A1	20000403	AU 1999-60217		19990826
EP 1108068	A1	20010620	EP 1999-969121		19990826
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 2002525077	T2	20020813	JP 2000-570372		19990826
US 2003125269	A1	20030703	US 1999-383894		19990826
PRIORITY APPLN. INFO.:			US 1998-98004P	P	19980826
			US 1999-117399P	P	19990127
			WO 1999-US19675	W	19990826

AB The present invention is directed to isolated nucleic acid mols. encoding pancreatic T-type calcium channels and vectors and host cells comprising such. The invention is further directed to methods and compns. which modulate the **expression** of pancreatic T-type calcium channels, including antisense. An isolated pancreatic T-type calcium channel protein is provided, as well as antibodies directed to such protein. Pharmaceutical compns. and methods of treatment involving pancreatic T-type calcium channels are also provided. The pharmacol. of Mibefradil action is also discussed and shows that T-type Ca2+ current is more sensitive to mibefradil than the L-type Ca2+ current in pancreatic β-cells. The results also shows that the inhibitory effect of mibefradil on T-type Ca2+ current in pancreatic β-cells results from reversible interaction between the drug and the channel protein. Inhibition of T-type Calcium channels was also shown with a Mibefradil metabolite. Further, it was shown that Streptozotocin induced high basal [Ca2+] **inhibits** KCL stimulated Ca2+ influx. In addition, it was shown that low voltage-activated Ca2+ current mediates cytokine-induced mouse pancreatic β-cell death. The relationship of this **gene** to NIDDM (non-insulin-dependent diabetes mellitus) is described. The data suggest that T-type calcium channels are a primary regulator of resting basal [Ca2+] in β-cells. Applications of antisense DNA are revealed which modulate this **gene**'s **expression** by blocking translation. **Expression** of a **ribozyme** is described which results in decreased **expression** of this rat pancreatic T-type calcium channel. Oligonucleotide probes for genomic or cDNA **library** screening are also described along with monoclonal and polyclonal antibodies. Methods for modulation of L-type calcium channels by modifying levels of functional T-type calcium channels is also discussed. Lastly, DNA primers are also mentioned to be used in a PCR reaction for amplification of this **gene**.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

on STN
ACCESSION NUMBER: 2000292057 EMBASE
TITLE: Identification of elF2Bγ and elF2γ as cofactors of hepatitis C virus internal ribosome entry site-mediated translation using a functional genomics approach.
AUTHOR: Kruger M.; Beger C.; Li Q.-X.; Welch P.J.; Tritz R.; Leavitt M.; Barber J.R.; Wong-Staal F.
CORPORATE SOURCE: F. Wong-Staal, Department of Medicine, University of California, San Diego School of Medicine, 9500 Gilman Drive, San Diego, CA 92093-0665, United States. fwongstaal@ucsd.edu
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (18 Jul 2000) 97/15 (8566-8571). ISSN: 0027-8424 CODEN: PNASA6
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The 5'-untranslated region of hepatitis C virus (HCV) is highly conserved, folds into a complex secondary structure, and functions as an internal ribosome entry site (IRES) to initiate translation of HCV proteins. We have developed a selection system based on a randomized **hairpin ribozyme gene library** to identify cellular factors involved in HCV IRES function. A retroviral vector **ribozyme library** with randomized target recognition sequences was introduced into HeLa cells, stably expressing a bicistronic construct encoding the hygromycin B phosphotransferase **gene** and the herpes simplex virus thymidine kinase **gene** (HSV-tk). Translation of the HSV-tk **gene** was mediated by the HCV IRES. Cells expressing **ribozymes** that **inhibit** HCV IRES-mediated translation of HSV-tk were selected via their resistance to both ganciclovir and hygromycin B. Two **ribozymes** reproducibly conferred the ganciclovir-resistant phenotype and were shown to **inhibit** IRES-mediated translation of HCV core protein but did not **inhibit** cap-dependent protein translation or cell growth. The functional targets of these **ribozymes** were identified as the gamma subunits of human eukaryotic initiation factors 2B (elF2Bγ) and 2 (elF2γ), respectively. The involvement of elF2Bγ and elF2γ in HCV IRES-mediated translation was further validated by **ribozymes** directed against additional sites within the mRNAs of these **genes**. In addition to leading to the identification of cellular IRES cofactors, **ribozymes** obtained from this cellular selection system could be directly used to specifically **inhibit** HCV viral translation, thereby facilitating the development of new antiviral strategies for HCV infection.

L7 ANSWER 20 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:691208 CAPLUS
DOCUMENT NUMBER: 131:333788
TITLE: Human **gene** ether-a-go-go potassium channel polypeptides and polynucleotides, cDNA and amino acid sequences, and biological, therapeutic and diagnostic uses thereof
INVENTOR(S): Pardo-Fernandez, Luis Angel; Stuhmer, Walter; Beckh, Synnove; Bruggemann, Andrea; Del Camino Fernandez-Miranda, Donato; Sanchez Perez, Araceli; Weseloh, Rudiger
PATENT ASSIGNEE(S): Max-Planck-Gesellschaft zur Forderung der Wissenschaften e.V., Germany
SOURCE: PCT Int. Appl., 89 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9954463	A2	19991028	WO 1999-EP2695	19990421
WO 9954463	A3	20000420		
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2323571	AA	19991028	CA 1999-2323571	19990421
EP 1073738	A2	20010207	EP 1999-920731	19990421
EP 1073738	B1	20040929		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002512029	T2	20020423	JP 2000-544795	19990421
AT 278017	E	20041015	AT 1999-920731	19990421
US 6638736	B1	20031028	US 2000-694777	20001023
US 2003077735	A1	20030424	US 2002-188308	20020701
US 2003087377	A1	20030508	US 2002-188296	20020701
US 2003087378	A1	20030508	US 2002-188341	20020701
US 2003092120	A1	20030515	US 2002-188297	20020701

PRIORITY APPLN. INFO.:	EP 1998-107268	A	19980421
	WO 1999-EP2695	W	19990421
	US 2000-694777	A3	20001023

AB The invention relates to novel human **gene** ether-a-go-go K+ ion channel (heag) isoforms, to nucleic acid mols. encoding these isoforms (heag1 and heag2), to **expression** vectors comprising said nucleic acid mols. and to the use of these vectors in recombinant production of heag. The invention also relates to monoclonal antibodies specifically directed to heag isoforms, and to pharmaceutical compns. and diagnostic kits containing at least one of the above-mentioned components. The present invention further relates to methods for treating or preventing a disease caused by malfunction of heag or by the aberrant **expression** of the nucleic acid mol. encoding heag. The methods specifically involve administering inhibitors and/or modifying agents that prevent **expression** of the nucleic acid mol. encoding heag and/or that **inhibit** the function or malfunction of the K+ ion channel. Still further the invention relates to: (1) methods of designing drugs for treating or preventing the above-mentioned disease, (2) methods of inhibiting cell proliferation, (3) methods of prognosing cancer (mammalian carcinoma), neurodegenerative diseases (Alzheimer's disease, Parkinson's disease, lateral amyotrophic sclerosis or multiple sclerosis) and/or psoriasis, and (4) methods of identifying an inhibitor of the function of heag or **expression** of heag encoding nucleic acid mols. And finally the invention relates to the use of heag in **gene** therapy. The cDNA sequences as well as the amino acid sequences of heag isoforms are provided. The invention showed the inhibition of human **gene** eag mRNA **expression** in EFM cells using a 19-mer antisense phosphorothioate ODN. The invention also showed that human eag **gene** mRNA is expressed in brain and in several human tumor cell lines including MCF-7, BT-474, EFM-19, COLO-824 and SHSY5Y.

L7 ANSWER 21 OF 25 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 6

ACCESSION NUMBER: 1999207845 EMBASE
TITLE: Combinatorial screening and intracellular antiviral activity of **hairpin ribozymes** directed against hepatitis B virus.
AUTHOR: Zu Putlitz J.; Yu Q.; Burke J.M.; Wands J.R.

CORPORATE SOURCE: J.R. Wands, Liver Research Center, 55 Claverick St., Providence, RI 02903, United States. JackWandsMD@Brown.edu
SOURCE: Journal of Virology, (1999) 73/7 (5381-5387).
Refs: 35
ISSN: 0022-538X CODEN: JOVIAM
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

AB A combinatorial screening method has been used to identify **hairpin ribozymes** that **inhibit** hepatitis B virus (HBV) replication in transfected human hepatocellular carcinoma (HCC) cells. A **hairpin ribozyme library** (5 x 105 variants) containing a randomized substrate-binding domain was used to identify accessible target sites within 3.3 kb of full-length in vitro- transcribed HBV pregenomic **RNA**. Forty potential target sites were found within the HBV pregenomic **RNA**, and 17 sites conserved in all four subtypes of HBV were chosen for intracellular inhibition experiments. Polymerase II and III promoter **expression** constructs for corresponding **hairpin ribozymes** were generated and cotransfected into HCC cells together with a replication- competent dimer of HBV DNA. Four **ribozymes** inhibited HBV replication by 80, 69, 66, and 49%, respectively, while catalytically inactive mutant forms of these **ribozymes** affected HBV replication by 36, 28, 0, and 0%. These findings indicate that the inhibitory effects on HBV replication were largely mediated by the catalytic activity of the **ribozymes** . In conclusion, we have identified catalytically active **RNAs** by combinatorial screening that mediate intracellular antiviral effects on HBV.

L7 ANSWER 22 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:88583 CAPLUS
DOCUMENT NUMBER: 130:293203
TITLE: Molecular cloning of mouse glycolate oxidase, high evolutionary conservation and presence of an iron-responsive element-like sequence in the mRNA
AUTHOR(S): Kohler, Stefan A.; Menotti, Eric; Kuhn, Lukas C.
CORPORATE SOURCE: Swiss Institute for Experimental Cancer Research, Lausanne, CH-1066, Switz.
SOURCE: Journal of Biological Chemistry (1999), 274(4), 2401-2407
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Iron regulatory proteins (IRPs) control the synthesis of several proteins in iron metabolism by binding to iron-responsive elements (IREs), a **hairpin** structure in the untranslated region (UTR) of corresponding mRNAs. Binding of IRPs to IREs in the 5' UTR **inhibits** translation of ferritin heavy and light chain, erythroid aminolevulinic acid synthase, mitochondrial aconitase, and Drosophila succinate dehydrogenase b, whereas IRP binding to IREs in the 3' UTR of transferrin receptor mRNA prolongs mRNA half-life. To identify new targets of IRPs, we devised a method to enrich IRE-containing mRNAs by using recombinant IRP-1 as an affinity matrix. A cDNA **library** established from enriched mRNA was screened by an **RNA**-protein band shift assay. This revealed a novel IRE-like sequence in the 3' UTR of a liver-specific mouse mRNA. The newly identified cDNA codes for a protein with high homol. to plant glycolate oxidase (GOX). Recombinant

protein expressed in bacteria displayed enzymic GOX activity. Therefore, this cDNA represents the first vertebrate GOX homolog. The IRE-like sequence in mouse GOX exhibited strong binding to IRPs at room temperature However, it differs from functional IREs by a mismatch in the middle of its upper stem and did not confer iron-dependent regulation in cells.
REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 23 OF 25 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN DUPLICATE 7
ACCESSION NUMBER: 1999:226778 BIOSIS
DOCUMENT NUMBER: PREV199900226778
TITLE: Design, characterization and testing of tRNA3Lys-based hammerhead **ribozymes**.
AUTHOR(S): Medina, Maria Fe C.; Joshi, Sadhna [Reprint author]
CORPORATE SOURCE: Department of Medical Genetics and Microbiology, Faculty of Medicine, University of Toronto, 150 College Street No. 212, Toronto, ON, M5S 3E2, Canada
SOURCE: Nucleic Acids Research, (April 1, 1999) Vol. 27, No. 7, pp. 1698-1708. print.
CODEN: NARHAD. ISSN: 0305-1048.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 17 Jun 1999
Last Updated on STN: 17 Jun 1999
AB A hammerhead **ribozyme** targeted against the HIV-1 env coding region was expressed as part of the anticodon loop of human tRNA3Lys without sacrificing tRNA stability or **ribozyme** catalytic activity. These tRNA-**ribozymes** were isolated from a **library** which was designed to contain linkers (sequences connecting the **ribozyme** to the anticodon loop) of random sequence and variable length. The **ribozyme** target site was provided in cis during selection and in trans during subsequent characterization. tRNA-**ribozymes** that possessed ideal combinations of linkers were expected to recognize the cis target site more freely and undergo cleavage. The cleaved molecules were isolated, cloned and characterized. Active tRNA-**ribozymes** were identified and the structural features conducive to cleavage were defined. The selected tRNA-**ribozymes** were stable, possessed cleavage rates lower or similar to the linear hammerhead **ribozyme**, and could be transcribed by an extract containing RNA polymerase III. Retroviral vectors expressing tRNA-**ribozymes** were tested in a human CD4+ T cell line and were shown to **inhibit** HIV-1 replication. These tRNA3Lys-based hammerhead **ribozymes** should therefore prove to be valuable for both basic and applied research. Special application is sought in HIV-1 or HIV-2 **gene** therapy.

L7 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:747594 CAPLUS
DOCUMENT NUMBER: 130:22238
TITLE: Enzymic ribozyme treatment of diseases or cancers related to expression of c-raf gene
INVENTOR(S): Jarvis, Thale; Matulic-Adamic, Jasenka; Reynolds, Mark; Kisich, Kevin; Bellon, Laurent; Parry, Tom; Beigelman, Leonid; McSwiggen, James A.; Karpeisky, Alexander; Burgin, Alex; Thompson, James; Workman, Christopher T.; Beaudry, Amber; Sweedler, David
PATENT ASSIGNEE(S): Ribozyme Pharmaceuticals, Inc., USA; et al.
SOURCE: PCT Int. Appl., 259 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 133
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9850530	A2	19981112	WO 1998-US9249	19980505
WO 9850530	A3	19990729		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9851819	A1	19980611	AU 1998-51819	19980112
AU 729657	B2	20010208		
CA 2288640	AA	19981112	CA 1998-2288640	19980505
AU 9872905	A1	19981127	AU 1998-72905	19980505
AU 749561	B2	20020627		
EP 980424	A2	20000223	EP 1998-920299	19980505
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001525667	T2	20011211	JP 1998-548448	19980505
EP 1321521	A1	20030625	EP 2003-2270	19980505
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
US 6054576	A	20000425	US 1998-164964	19981001
US 6162909	A	20001219	US 1999-326154	19990604
AU 9939188	A1	19990916	AU 1999-39188	19990713
US 6303773	B1	20011016	US 2000-644962	20000823
AU 769175	B2	20040115	AU 2000-56616	20000911
US 2002028919	A1	20020307	US 2001-960192	20010921
US 6489465	B2	20021203		
US 2002103366	A1	20020801	US 2001-957841	20010921
US 6673918	B2	20040106		
US 2003125291	A1	20030703	US 2002-277263	20021022
US 6797815	B2	20040928		
US 2004147735	A1	20040729	US 2004-752415	20040106

PRIORITY APPLN. INFO.:			
	US 1997-46059P	P	19970509
	US 1997-49002P	P	19970609
	US 1997-51718P	P	19970703
	US 1997-56808P	P	19970822
	US 1997-61321P	P	19971002
	US 1997-61324P	P	19971002
	US 1997-64866P	P	19971105
	US 1997-68212P	P	19971219
	AU 1995-26422	A3	19950518
	US 1996-623891	A	19960325
	AU 1996-76662	A3	19961025
	WO 1998-US9249	W	19980505
	US 1998-135964	A1	19980818
	US 1998-164964	A1	19981001
	EP 1998-920299	A3	19981112
	US 1999-326154	A1	19990604
	US 2000-644962	A1	20000823
	US 2001-957841	A1	20010921
	US 2001-960192	A1	20010921

OTHER SOURCE(S): MARPAT 130:22238

AB This invention relates to identification, synthesis and use of nucleic acid catalysts to cleave RNA species that are required for cellular growth responses. In particular, the invention describes the selection and

function of ribozymes capable of cleaving RNA encoded by c-raf gene. Such ribozymes may be used to inhibit the proliferation of tumor cells in one or more cancers, restenosis, psoriasis, fibrosis and rheumatoid arthritis.

L7 ANSWER 25 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:728548 CAPLUS
DOCUMENT NUMBER: 130:835
TITLE: Intracellular glucocorticoid-induced leucine zipper proteins as modulators of apoptosis in lymphocytes
INVENTOR(S): Riccardi, Carlo
PATENT ASSIGNEE(S): Applied Research Systems Ars Holding N.V., Neth. Antilles
SOURCE: PCT Int. Appl., 109 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9849291	A1	19981105	WO 1998-EP2490	19980427
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
EP 884385	A1	19981216	EP 1997-107033	19970428
R: IT				
CA 2287906	AA	19981105	CA 1998-2287906	19980427
AU 9877593	A1	19981124	AU 1998-77593	19980427
AU 747869	B2	20020523		
EP 1007672	A1	20000614	EP 1998-925488	19980427
R: AT, BE, CH, DE, DK, ES, LI, SI, LT, LV, FI, RO				
JP 2001523102	T2	20011120	JP 1998-546599	19980427
US 6833348	B1	20041221	US 2000-403861	20000211
US 2004194160	A1	20040930	US 2003-630926	20030731

PRIORITY APPLN. INFO.:		
EP 1997-107033	A	19970428
WO 1998-EP2490	W	19980427
US 2000-403861	A2	20000211

AB A protein that plays a role in protecting T-cell from apoptosis induced by anti-CD3 monoclonal antibodies (i.e. Fas-mediated apoptosis) is identified and a cDNA encoding it is cloned. The protein has a leucine zipper and appears to represent a new class of glucocorticoid-induced leucine-zipper related proteins (GILR). A cDNA for the protein was a member of a subtracted **library** from dexamethasone-induced mouse thymocytes. Sequencing of the clone showed the leucine zipper motif in the **gene** product. Overexpression of the cDNA protected against the induction of apoptosis by anti-CD3 antibody, but not against glucocorticoid induction. The overexpression appeared to **inhibit** synthesis of Fas and Fas ligand.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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FULL ESTIMATED COST	101.87	102.08

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LAST RELOADED: Jan 21, 2005 (20050121/UP).

=> d ti ab l6 1-9
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FULL ESTIMATED COST 0.72 102.80

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=> d ti ab l7 1-7
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CONTINUE? (Y)/N:y

L7 ANSWER 1 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
TI Small interfering **RNA libraries** and methods of cloning and use
AB In one aspect, the invention provides a random or semirandom siRNA (encoding) **library**. Another aspect of the invention pertains to methods for construction of random or semirandom siRNA (encoding) **libraries**. Another aspect of the invention is vector systems for use in constructing siRNA **libraries** and/or that can express single siRNAs and siRNA **libraries** both constitutively and in an inducible fashion. In another aspect, the invention provides a method of using an siRNA **library**. The siRNA **library** is introduced into a population of cells. The population of cells then is subjected to a selection process to select a subpopulation of cells exhibiting a different behavioral, biochem., chemical, functional, mol.,

morphol., phenotypic, or phys. property from the remainder of population. Following the selection process, the subpopulation of cells can be isolated, analyzed, and/or cloned as desired. Such anal. of the subpopulation can be identification and sequencing of the siRNA species responsible for the different properties of the subpopulation relative to the remainder of the population. Alternatively, the subpopulation can be further analyzed by genomic, proteomic, and/or cellomic assays. Where such genomic, proteomic, and/or cellomic assays are employed, the method can produce several useful bioinformatics products. Specific siRNAs identified through this process may have direct therapeutic value. The invention claims **RNA** sequences for four siRNAs that **inhibit** human estrogen receptor α. In an example, a human cDNA **library** is digested into 100-1000 bp fragments using a restriction enzyme and cloned into plasmids having bidirectional transcription driven by flanking, oppositely-oriented T7 promoters. The plasmids also have vaccinia E3L **gene** cloned in cis with the digested cDNA fragment. The resulting siRNA **library** is a population of plasmids, each containing a sense and antisense copy of a random 19-mer. In mammalian cells, transcription of the **library** will produce dsRNA and **expression** of the E3L protein will **inhibit** the interferon response to long dsRNAs and prevent cell death. The endogenous DICER enzyme will process the long dsRNAs into 21-23 bp siRNAs.

L7 ANSWER 2 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for the synergistic **gene** silencing at both transcription level (using zinc finger protein) and post-transcription level (RNAi technologies), and therapeutic uses
AB The present invention relates to methods and compns. for regulating a target **gene** at both transcriptional and post-transcriptional levels. More particularly, it includes in one embodiment, a method for regulating a target **gene**, which comprises introducing into a cell a zinc finger protein binding to a promoter of the target **gene** or a DNA encoding said protein, and a **RNA** mol. binding to an mRNA transcribed from the target **gene** to **inhibit** the **expression** of said target **gene**. A composition for regulating a target **gene** comprising the zinc finger protein or a DNA encoding same, and the **RNA** mol. provide a substantially complete **gene** regulating effect due to the synergistic effect of the combination of ZFP and RNAi technologies.

L7 ANSWER 3 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
TI Protein and cDNA sequences of human and mouse cartilage differentiation inhibiting **gene**, their therapeutic and diagnostic uses for cartilage related diseases
AB The present invention provides protein and cDNA sequences of human and mouse cartilage differentiation inhibiting proteins that **inhibit** type II collagen **expression**, and their uses in diagnosis, treatment and prevention of diseases associated with cartilage impairments. Using the plasmid CPE43, the cDNA encoding a protein that can **inhibit** type II collagen **expression** is cloned from the cDNA **library** constructed from mouse cell line ATDC5 and human lung fibroblast, and the DNA sequence and the deduced amino acid sequence are determined The protein, the DNA encoding the protein, a recombinant vector containing the DNA, and a transformant containing the recombinant vector are useful in screening for a substance inhibiting or promoting the type II collagen **expression**.

L7 ANSWER 4 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
TI Partially double stranded **RNAs** with **hairpin** structures for use in **RNA** interference without induction of **RNA** -associated toxicity and their therapeutic uses

AB Partially double-stranded interfering **RNAs** that include a **hairpin** structure are described for use in **RNA** interference. These interfering **RNAs** specifically **inhibit** the **expression** of target **genes** in a cell or animal without inducing the toxic effects, such as the **RNA** stress response, seen with prior art interfering **RNAs**. These methods can be used to prevent or treat a disease or infection by silencing a **gene** associated with the disease or infection. The invention also provides methods for identifying nucleic acid sequences that modulate a detectable phenotype, such as the function of a cell, the **expression** of a **gene**, or the biol. activity of a target polypeptide.

L7 ANSWER 5 OF 25 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 1

TI Identification of cellular cofactors for human immunodeficiency virus replication via a **ribozyme**-based genomics approach.

AB **Ribozymes** are small, catalytic **RNA** molecules that can be engineered to down-regulate **gene expression** by cleaving specific mRNA. Here we report the selection of **hairpin ribozymes** that **inhibit** human immunodeficiency virus (HIV) replication from a combinatorial **ribozyme library**. We identified a total of 17 effective **ribozymes**, each capable of inhibiting HIV infection of human CD4 (+) cells. These **ribozymes** target diverse steps of the viral replication cycle, ranging from entry to transcription. One **ribozyme** suppressed HIV integration and transcription by inhibiting the **expression** of the Ku80 subunit of the DNA-activated protein kinase. Another **ribozyme** specifically inhibited long terminal repeat transactivation, while two additional ones blocked a step that can be bypassed by vesicular stomatitis virus G-protein pseudotyping. The function of Ku80 in HIV replication and its mechanism of action were further confirmed using short interfering **RNA**. Identification of the **gene** targets of these and other selected **ribozymes** may reveal novel therapeutic targets for combating HIV infection.

L7 ANSWER 6 OF 25 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation. on STN

TI Aminoglycoside microarrays to explore interactions of antibiotics with RNAs and proteins

AB RNA is an important target for drug discovery efforts. Several clinically used aminoglycoside antibiotics bind to bacterial rRNA and **inhibit** protein synthesis. Aminoglycosides, however, are losing efficacy due to their inherent toxicity and the increase in antibiotic resistance. Targeting of other RNAs is also becoming more attractive thanks to the discovery of new potential RNA drug targets through genome sequencing and biochemical efforts. Identification of new compounds that target RNA is therefore urgent, and we report here on the development of rapid screening methods to probe binding of low molecular weight ligands to proteins and RNAs. A series of aminoglycosides has been immobilized onto glass microscope slides, and binding to proteins and RNAs has been detected by fluorescence. Construction and analysis of the arrays is completed by standard DNA genechip technology. Binding of immobilized aminoglycosides to proteins that are models for study of aminoglycoside toxicity (DNA polymerase and phospholipase C), small RNA oligonucleotide mimics of aminoglycoside binding sites in the ribosome (rRNA A-site mimics), and a large (approximate to 400 nucleotide) group I **ribozyme** RNA is detected. The ability to screen large RNAs alleviates many complications associated with binding experiments that use isolated truncated regions from larger RNAs. These studies lay the foundation for rapid identification of small organic ligands from combinatorial **libraries** that exhibit strong and selective RNA

binding while displaying decreased affinity to toxicity-causing proteins.

L7 ANSWER 7 OF 25 MEDLINE on STN DUPLICATE 2
TI A plasmid-based system for expressing small interfering **RNA libraries** in mammalian cells.
AB BACKGROUND: **RNA** interference (RNAi) is an evolutionarily conserved process that functions to **inhibit gene expression**. The use of RNAi in mammals as a tool to study **gene** function has rapidly developed in the last couple of years since the discovery that the function-inhibiting units of RNAi are short 21-25 nt double-stranded **RNAs** (siRNAs) derived from their longer template. The use of siRNAs allows for **gene**-specific knock-down without induction of the non-specific interferon response in mammalian cells. Multiple systems have been developed to introduce siRNAs into mammals. One of the most appealing of these techniques is the use of vectors containing polymerase III promoters to drive **expression** of **hairpin** siRNAs. However, there are multiple limitations to using **hairpin** siRNA vectors including the observation that some are unstable in bacteria and are difficult to sequence. RESULTS: To circumvent the limitation of **hairpin** siRNA vectors we have developed a convergent opposing siRNA **expression** system called pHippy. We have generated pHippy vectors or **expression** cassettes that knock down the **expression** of both reporter and endogenous **genes**. As a proof of principle that pHippy can be used to generate random siRNA **libraries**, we generated a small siRNA **library** against PGL3 luciferase and demonstrated that we could recover functional siRNAs that knock down PGL3 luciferase. CONCLUSIONS: siRNA is a powerful tool to study **gene** function. We have developed a new vector with opposing convergent promoters for the **expression** of siRNAs, which can be used to knock down endogenous **genes** in a high throughput manner or to perform functional screening with random or cDNA-derived siRNA **libraries**.

=> d ibib l7 1 4 5 7
YOU HAVE REQUESTED DATA FROM FILE 'EMBASE, BIOSIS, MEDLINE, SCISEARCH, CAPLUS' - CONTINUE? (Y)/N:y

L7 ANSWER 1 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1020024 CAPLUS
DOCUMENT NUMBER: 141:421013
TITLE: Small interfering **RNA libraries** and methods of cloning and use
INVENTOR(S): Nichols, Mark; Steinman, Richard
PATENT ASSIGNEE(S): University of Pittsburgh of the Commonwealth System of Higher Education, USA
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004101788	A2	20041125	WO 2004-US14494	20040510

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG
PRIORITY APPLN. INFO.: US 2003-469169P P 20030509

L7 ANSWER 4 OF 25 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:101279 CAPLUS
DOCUMENT NUMBER: 140:158524
TITLE: Partially double stranded **RNAs** with **hairpin** structures for use in **RNA** interference without induction of **RNA** -associated toxicity and their therapeutic uses
INVENTOR(S): Pachuk, Catherine J.; Satishchandran, C.; Chopra, Maninder; Shuey, David
PATENT ASSIGNEE(S): Nucleonics, Inc., USA
SOURCE: PCT Int. Appl., 174 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011624	A2	20040205	WO 2003-US24028	20030731
WO 2004011624	C2	20040408		
WO 2004011624	A3	20041209		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 2002-399998P P 20020731

L7 ANSWER 5 OF 25 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 1
ACCESSION NUMBER: 2004493962 EMBASE
TITLE: Identification of cellular cofactors for human immunodeficiency virus replication via a **ribozyme** -based genomics approach.
AUTHOR: Waninger S.; Kuhen K.; Hu X.; Chatterton J.E.; Wong-Staal F.; Tang H.
CORPORATE SOURCE: H. Tang, Department of Biological Sciences, Biology Unit 1, Florida State University, Tallahassee, FL 32306-4370, United States. tang@bio.fsu.edu
SOURCE: Journal of Virology, (2004) 78/23 (12829-12837).
Refs: 35
ISSN: 0022-538X CODEN: JOVIAM
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
026 Immunology, Serology and Transplantation
LANGUAGE: English

SUMMARY LANGUAGE: English

L7 ANSWER 7 OF 25 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2004256536 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15119963
TITLE: A plasmid-based system for expressing small interfering **RNA libraries** in mammalian cells.
AUTHOR: Kaykas Ajamete; Moon Randall T
CORPORATE SOURCE: Howard Hughes Medical Institute, Department of Pharmacology, and Center for Developmental Biology, University of Washington School of Medicine, Seattle, WA 98195,. USA.akaykas@u.washington.edu
SOURCE: BMC cell biology [electronic resource], (2004 Apr 30) 5 (1) 16.
Journal code: 100966972. ISSN: 1471-2121.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 20040525
Last Updated on STN: 20040602
Entered Medline: 20040601

=> s small (w) interfer? (w) rna (w) librar?
L9 8 SMALL (W) INTERFER? (W) RNA (W) LIBRAR?

=> dup rem l0
ENTER L# LIST OR (END):9
9 IS NOT VALID HERE
The L-number entered has not been defined in this session, or it has been deleted. To see the L-numbers currently defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10 6 DUP REM L9 (2 DUPLICATES REMOVED)

=> d ibib l10 1-6

L10 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1020024 CAPLUS
DOCUMENT NUMBER: 141:421013
TITLE: **Small interfering RNA libraries** and methods of cloning and use
INVENTOR(S): Nichols, Mark; Steinman, Richard
PATENT ASSIGNEE(S): University of Pittsburgh of the Commonwealth System of Higher Education, USA
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004101788	A2	20041125	WO 2004-US14494	20040510

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG
PRIORITY APPLN. INFO.: US 2003-469169P P 20030509

L10 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:80856 CAPLUS
DOCUMENT NUMBER: 140:140740
TITLE: dual pol III promoter cassette for transcription of small interfering RNA (siRNA) library and uses
INVENTOR(S): Li, Henry; Chatterton, Jon E.; Ke, Ning; Wong-Staal, Flossie
PATENT ASSIGNEE(S): Immusol, Inc., USA
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004009794	A2	20040129	WO 2003-US23157	20030723
WO 2004009794	A3	20040624		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004146858	A1	20040729	US 2003-626512	20030723

PRIORITY APPLN. INFO.: US 2002-398915P P 20020724

L10 ANSWER 3 OF 6 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 2004:274067 BIOSIS
DOCUMENT NUMBER: PREV200400274357
TITLE: Small interfering RNA production by enzymatic engineering of DNA (SPEED).
AUTHOR(S): Luo, Biao; Heard, Amanda D.; Lodish, Harvey F. [Reprint Author]
CORPORATE SOURCE: Whitehead Inst Biomed Res, 9 Cambridge Ctr, Cambridge, MA, 02142, USA
lodish@wi.mit.edu
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (April 13 2004) Vol. 101, No. 15, pp. 5494-5499. print.
ISSN: 0027-8424 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 2 Jun 2004
Last Updated on STN: 2 Jun 2004

L10 ANSWER 4 OF 6 MEDLINE on STN DUPLICATE 1

ACCESSION NUMBER: 2004256536 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15119963
TITLE: A plasmid-based system for expressing **small interfering RNA libraries** in mammalian cells.
AUTHOR: Kaykas Ajamete; Moon Randall T
CORPORATE SOURCE: Howard Hughes Medical Institute, Department of Pharmacology, and Center for Developmental Biology, University of Washington School of Medicine, Seattle, WA 98195,. USA.akaykas@u.washington.edu
SOURCE: BMC cell biology [electronic resource], (2004 Apr 30) 5 (1) 16.
Journal code: 100966972. ISSN: 1471-2121.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 20040525
Last Updated on STN: 20040602
Entered Medline: 20040601

L10 ANSWER 5 OF 6 DUPLICATE 2 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 2004:320712 BIOSIS
DOCUMENT NUMBER: PREV200400321938
TITLE: A plasmid-based system for expressing **small interfering RNA libraries** in mammalian cells.
AUTHOR(S): Kaykas, Ajamete; Moon, Randall T. [Reprint Author]
CORPORATE SOURCE: Howard Hughes Med InstDept Pharmacol, Univ Washington, Seattle, WA, 98195, USA
akaykas@u.washington.edu; rtmoon@u.washington.edu
SOURCE: BMC Cell Biology, (April 30 2004) Vol. 5, No. April 30. print.
ISSN: 1471-2121 (ISSN online).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Jul 2004
Last Updated on STN: 21 Jul 2004

L10 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:614194 CAPLUS
DOCUMENT NUMBER: 139:144419
TITLE: Development of siRNA libraries by in vitro dicing and optimized efficient expression vectors for siRNAs in mammalian cells
AUTHOR(S): Kawasaki, Hiroaki; Miyagishi, Makoto; Taira, Kazunari
CORPORATE SOURCE: Grad. Sch. Eng., The Univ. Tokyo, Japan
SOURCE: Tanpakushitsu Kakusan Koso (2003), 48(11, Zokango), 1638-1645
CODEN: TAKKAJ; ISSN: 0039-9450
PUBLISHER: Kyoritsu Shuppan
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese